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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/049,744	05/16/2002	Uwe Flessner	P-1118	6015

7590 02/09/2005

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EXAMINER

JOHNSON, CHRISTINA ANN

ART UNIT	PAPER NUMBER
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1725

DATE MAILED: 02/09/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

**Application No.**

10/049,744

**Applicant(s)**

FLESSNER, UWE

**Examiner**

Christina Johnson

**Art Unit**

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 20 October 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 4,8,11,12,20 and 29 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 4,8,11,12,20 and 29 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 4, 8, 11-12, 16, and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shaked et al.

Shaked et al. (US 5,749,955) discloses a clay composition suitable for bleaching oil. The composition comprises a clay which is activated by metal salts that are Lewis acids (column 2, lines 5-15). Suitable clays include those of the hornblende group, such as palygorskite and sepiolite, and those of the smectite group, such as montmorillonite and saponite (column 3, lines 15-65). It is taught that the amount of available surface acid sites is enhanced by introducing cations of high charge and small radius, such as Fe, Al, or Ti, that react with water to make a proton available for further reaction and that additional protons may be provided by means of an acid treatment using a protonic acid such as sulfuric acid (column 4, lines 1-10). Lewis acid metal salts are suitable sources of the metal cation (column 4, lines 30-35). It is taught that the clay material may be combined with an aqueous solution of the metal salt (column 4, lines 10-15). It is taught that the metal salts may be mixed with the clay in the presence of the protonic acid

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(column 4, lines 60-68). Refer also to columns 7-8 and Table 5, which detail the preparation of a clay composition in one step using Al, Fe, and sulfuric acid. The reference details that the prepared clay composition is dried to a free moisture content no more than 10 weight percent (column 4, lines 15-20).

The difference between the reference and the claims is that the reference does not specifically disclose the step "preparing a mixture of a phyllosilicate and an activating acid; adding iron cations to the mixture of the phyllosilicate and the activating acid" as required by claim 4. The reference does not disclose the precise order of adding the ingredients to the mixture. However, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have arrived at the claimed order, given the limited number of possibilities and the absence of any criticality to the specific order claimed.

With respect to claims 11-12, the addition of an aluminum salt as described in columns 7-8 and Table 5, is considered to meet the solution which contains aluminum and iron ions.

With respect to claim 16, the reference does not specifically disclose that the composition is calcined. However, given that no conditions are claimed for the calcination step and the teaching by the reference that the composition is dried to reduce its moisture content, it is the position of the examiner that the reference would meet the term "dried and calcined."

***Claim Rejections - 35 USC § 102/103***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claim 20 is rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over EP 0 925 829.

EP 0 925 826 discloses an acid activated clay for treating aromatic hydrocarbons. The EP reference teaches that a dioctahedral smectite clay is treated with a mineral acid in the presence of catalytically active ions which are present in the clay such as aluminum and iron [0054], [0058]-[0066]. The acid solution solution is then separated and the clay is treated with an iron salt [0067]-[0071].

It is noted that instant claim 20 is directed towards a process of using a product by process. In this case, the disclosed product of the EP reference and the instantly claimed product appear to be essentially the same, comprised of the same components, and used in the same manner. In the event any differences can be shown for the product of the product-by-process claim 20 as opposed to the product taught by the prior art, such differences would have been obvious to one of ordinary skill in the art as a routine modification of the product in the absence of a showing of unexpected results. See *In re Thorpe*, 227 USPQ 964 (Fed. Cir. 1985). Also, when the examiner has found a substantially similar product as in the applied prior art, the burden of proof is shifted to

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applicant to establish that their product is patentably distinct and not the examiner to show the same process of making. *In re Brown*, 173 USPQ 685 and *In re Fessmann*, 180 USPQ 324.

### ***Response to Arguments***

5. Applicant's arguments with respect to claims 4, 8, 11-12, 20, and 29 have been considered but are moot in view of the new ground(s) of rejection.

With respect to claim 20, the rejection has been maintained over the EP reference because the evidence of record is insufficient to demonstrate that the product resulting from the instantly claimed process differs structurally, by virtue of its process of making, from the two step process employed in the EP reference. It is not clear whether a side by side comparison has been conducted and the comparative examples are not commensurate in scope with claim 20.

6. The amendments to claim 4 and applicant's remarks filed October 20, 2004 are sufficient to overcome the rejection under 35 USC 112, first paragraph.

### ***Conclusion***

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

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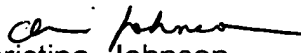
A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christina Johnson whose telephone number is (571) 272-1176. The examiner can normally be reached on Monday-Friday, 7:30-5, with Alternate Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tom Dunn can be reached on (571) 272-1171. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Christina Johnson  
Patent Examiner  
Art Unit 1725

2/7/05

CAJ  
February 7, 2005